



PATENT ABSTRACTS OF JAPAN

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(71) Applicant: DENSO CORP

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(72) Inventor: RAJESH KUMAR

YAMAMOTO TAKESHI

(54) SILICON CARBIDE SEMICONDUCTOR DEVICE

MOSFET with withstand voltage.

(57) Abstract:

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PROBLEM TO BE SOLVED: To surely provide withstand voltage to a MOSFET by allowing a plurality of P-N junctions constituting a super-junction to be provided to an element part with sure.

SOLUTION: A super-junction comprises, formed on a main surface 1a of an n⁺ type substrate 1, a plurality of P-N junctions where a plurality of n-type layers 2 and p-type layers 3 are provided alternately on the main surface 1a, with the n-type layers 2 and p-type layers 3, constituting the super-junction formed on the entire surface of main surface 1a of the n⁺ type substrate 1. With the super-junction formed over the entire surface of the main surface 1a of the n⁺ type substrate 1, the super-junction is formed surely under a p-type base region 5 and n-type source region 6, even if the super-junction formation position deviates due to dislocation of a mask, etc., providing surely an

